

WHAT IS CLAIMED IS:

1. A computer implemented method of automatically generating Electronic Data Interchange (EDI) documents or messages using an EDI system, comprising:

extracting segments, transaction sets, functional groups, and attributes from an EDI document, as extracted data; and

storing the extracted data in a memory in a hierarchical manner according to whether the extracted data is segment data, transaction set data, functional group data, or attribute data.

2. The method according to claim 1, further comprising:

extracting at least one segment from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.

3. The method according to claim 1, further comprising:

extracting at least one transaction set from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.

4. The method according to claim 1, further comprising:

extracting at least one functional group from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.

5. The method according to claim 1, further comprising:

extracting at least one functional group from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory; and

extracting at least one transaction set from the EDI document that is a part of the at least one functional group, based on a linkage in the memory of the at least one transaction set to the at least one functional group.

6. A system for automatically generating data in a self-describing markup language format from received EDI data, comprising:

a data extractor that is configured to extract segments, transaction sets, functional groups, and attributes from an EDI document, as extracted data; and

a memory that is configured to store the extracted data in a hierarchical manner, the extracted data being stored in the memory according to whether the extracted data is segment data, transaction set data, functional group data, or attribute data.

7. The system according to claim 6, further comprising:
- a second data extractor that extracts at least one segment from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.
8. The system according to claim 6, further comprising:
- a second data extractor that extracts at least one transaction set from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.
9. The system according to claim 6, further comprising:
- a second data extractor that extracts at least one functional group from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.
10. The system according to claim 6, further comprising:
- a second data extractor that extracts at least one functional group from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory; and

a third data extractor that extracts at least one transaction set from the EDI document that is a part of the at least one functional group, based on a linkage in the memory of the at least one transaction set to the at least one functional group.

11. A computer readable data storage medium for an EDI system having program code recorded thereon that is executable by a computer to perform the following steps :

extracting segments, transaction sets, functional groups, and attributes from an EDI document, as extracted data; and

storing the extracted data in a memory in a hierarchical manner according to whether the extracted data is segment data, transaction set data, functional group data, or attribute data.

12. The computer readable data storage medium having program code recorded thereon according to claim 11, further comprising:

extracting at least one segment from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.

13. The computer readable data storage medium having program code recorded thereon according to claim 11, further comprising:

extracting at least one transaction set from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.

14. The computer readable data storage medium having program code recorded thereon according to claim 11, further comprising:

extracting at least one functional group from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory.

15. The computer readable data storage medium having program code recorded thereon according to claim 11, further comprising:

extracting at least one functional group from the EDI document from the memory based on a hierarchical relationship between the segment and other data of the EDI document stored in the memory; and

extracting at least one transaction set from the EDI document that is a part of the at least one functional group, based on a linkage in the memory of the at least one transaction set to the at least one functional group.